

GenCore version 5.1.3					
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<b>Om protein - protein search, using sw model</b>					
Run on:	December 19, 2002, 14:50:16 ; Search time 39 Seconds	(without alignments)	1940.676 Million cell updates/sec		
Title:	US-08-813-323B-2				
Perfect score:	3008				
Sequence:	1 MESKKMDSPCALQTNPPLK.....IKDDTIFIKVIVDSDLRDP 568				
Scoring table:	BLOSUM62				
Gapop:	10.0 , Gapext 0.5				
Searched:	908470 seqs, 133250620 residues				
Post-processing:	Minimum Match 0%				
Maximum DB seq length:	0				
Maximum DB seq length:	200000000				
Database :	A_Geneseq_101022:*				
1:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1980.DAT:*				
2:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1981.DAT:*				
11:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1989.DAT:*				
12:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1991.DAT:*				
13:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1992.DAT:*				
14:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1993.DAT:*				
15:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1994.DAT:*				
16:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1995.DAT:*				
17:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1996.DAT:*				
18:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1984.DAT:*				
6:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1985.DAT:*				
7:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1987.DAT:*				
8:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1988.DAT:*				
9:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1989.DAT:*				
10:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1990.DAT:*				
11:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1991.DAT:*				
12:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1992.DAT:*				
13:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1993.DAT:*				
14:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1994.DAT:*				
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16:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1996.DAT:*				
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20:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA1999.DAT:*				
21:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA2000.DAT:*				
22:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA2001.DAT:*				
23:	/SIDS2/gcdata/geneseq/geneseq-emb1/AA2002.DAT:*				
<b>SUMMARIES</b>					
<b>Pred.</b> No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.					
Result No.	Score	Query	%		
			Match Length	DB ID	Description
1	3008	100.0	568	18	AAW27431 Human CRAF1-a (TRAF-3) protein
2	3008	100.0	568	21	AAV98166 Human CD40 receptor
3	3008	100.0	568	23	AAO17756 Human CRAF1-b (TRAF-3) associated protein
4	3008	100.0	690	18	AAW27428 Human CRAF1-b (TRAF-3) associated protein
5	3002	99.8	568	17	AAW03146 Human CRAF1-b (TRAF-3) associated protein
6	2980.5	99.1	567	22	AAE67615 Human CD40 receptor
7	2970.5	98.8	567	17	AAK99259 Human CRAF1-b (TRAF-3) associated protein
8	2886.5	96.0	567	23	AAQ17756 Human CRAF1-b (TRAF-3) associated protein
9	2878.5	95.5	567	23	ABP57054 Human CRAF1 isoform
10	2847.5	94.7	543	18	AAW27432 Human CRAF1 isoform
<b>ALIGNMENTS</b>					
ID	AAW27431	AAW27431 standard; Protein: 568 AA.			
AC	AAW27431;				
XX					
DT	27-MAR-1998	(first entry)			
DE	Human CRAF1-a (TRAF-3-p55) polypeptide.				
XX					
KW	CD40 receptor associated factor 1; CRAF1-a; TRAF-3; p55; human; CD40 mediated intracellular signalling; organ rejection; allergy; hay fever; autoimmune disease; systemic lupus erythematosus; rheumatoid arthritis; myasthenia gravis; Graves' disease; idiopathic thrombocytopenia purpura; haemolytic anaemia; apoptosis; Ritter's syndrome; spondyloarthritis; Lyme disease; HIV; syphilis; tuberculosis; arthritis; scleroderma; pulmonary fibrosis; pneumoconiosis; adult respiratory distress syndrome; pneumonitis; asbestososis; silicosis; Farmer's lung; hepatitis; cirrhosis; glomerulonephritis; glomerululosclerosis; glomerulopathy; kidney disease; nephropathy; endocarditis; leprosy; malaria; Goobasture's disease; Henoch-Schoenlein purpura; poliarteritis; multiple myeloma; Wegener's granulomatosis; cryoglobulinemia; Waldenstrom's macroglobulinemia; amyloidosis; Sjogren's syndrome; ALPS; oesophageal dysmotility; inflammatory bowel disease; bladder disease; Epstein-Barr virus; mononucleosis; B cell tumour; Burkitt's lymphoma; nasopharyngeal carcinoma; pneumonia; gene therapy; diagnosis.				
XX					
KW	Homo sapiens.				
XX					



PT	diseases	AA01757
XX		ID AA01757 standard; protein; 568 AA.
PS	disclosure; Page 111-114; 170pp; English.	XX
XX		AC AA01757;
CC	The present invention relates to antisense oligonucleotides (see AAS5549-R55757) which are targeted to nucleic acids encoding a human tumour necrosis factor receptor-associated factor (TRAF). The antisense sequences comprise at least one modified internucleotide linkage, which is a phosphothioate linkage. The oligonucleotides also include at least one modified sugar moiety such as a 2'-O-methoxyethyl sugar moiety. Sequences AAS5540-A55495 represent nucleotide sequences encoding human TRAF-6, and sequences AAY8154-Y89169 represent the TRAF1-6 amino acid sequences. Included in the invention is a method for treating a human having a disease associated with the expression of TRAF comprising administering an antisense oligonucleotide. The reduction of Jun kinase activation in cells comprises contacting the cells with an antisense oligonucleotide targeted to TRAF-6. A method for the reduction of E-selectin expression in cells or tissues comprises contacting the cells or tissues with an antisense oligonucleotide targeted to TRAF-2 or TRAF-6. The antisense oligonucleotides have antiproliferative and anti-inflammatory activity and are useful for treating disorders associated with cell proliferation and inflammation. The antisense oligonucleotides may also be used as a diagnostic probe for studying gene function.	DT XX
CC		DE Human CD40 receptor-associated factor 1 (CRAF1).
CC		XX Human; CD40 receptor-associated factor 1; CRAF1; organ rejection; autoimmune disease; apoptosis; infection; fibrosis; liver disease; KW KW immunosuppressive; antineoplastic; nephrotic; anti-allergic; anti-thyroid; anti-rheumatic; antiarthritic; cardiotonic; KW KW dermatological; haemostatic; antidiabetic; antiarteriosclerotic; anti-psoriatic; bladder disease; human herpesvirus 4; Epstein-Barr virus.
CC		KW OS Homo sapiens.
CC		XX PN US2002031522-A1.
CC		XX PD 14-MAR-2002.
CC		XX PF 10-MAR-1997; 97US-0813323.
XX	Sequence 568 AA:	XX PR 11-MAR-1996; 96US-013199P.
	Query Match 100.0%; Score 3008; DB 21; Length 568; Best Local Similarity 100.0%; Pred. No. 8e-239; Matches 568; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	XX PA (BALTIMORE) BALTIMORE D.
OY	1 MESSKMDSPGALQPLKHTDRAAGTPVPEOGGYKEKFVKTVEDYKCEKCHLV 60	XX PA (CHEN/) CHENG G.
Db	1 MESSKMDSPGALQPLKHTDRAAGTPVPEOGGYKEKFVKTVEDYKCEKCHLV 60	XX PA (YEZ/) YE Z.
OY	61 CSPKQTECGHRCESMAALISSLSSPKCTACQESTVKDKFKDCCKRELLAOLYCRL 120	XX PA (LEDERMAN/) LEDERMAN S.
Db	61 CSPKQTECGHRCESMAALISSLSSPKCTACQESTVKDKFKDCCKRELLAOLYCRL 120	XX PI Baltimore D., Cheng G., Ye Z., Lederman S., Cleary A;
OY	121 SRGCAPQTLGHLYLWKLNDQFEELPCVPRDKCKEVLKDRLIVEKACKYRATCSC 180	XX DR WPI: 2002-451449/8.
Db	121 SRGCAPQTLGHLYLWKLNDQFEELPCVPRDKCKEVLKDRLIVEKACKYRATCSC 180	XX DR N-PSDB; AAL46193.
OY	181 KSQVPHALQKHEDTCPVWVSCPHKCSVOTLLASLSHLSECVNADSTCSKRYGV 240	XX PT New CD40 receptor-associated factor 1 capable of inhibiting CD40-mediated cell activation, useful for treating e.g. inflammatory diseases, autoimmune diseases, allergic reaction, or organ transplant rejection.
Db	181 KSQVPHALQKHEDTCPVWVSCPHKCSVOTLLASLSHLSECVNADSTCSKRYGV 240	XX PS Disclosure; Fig. 1; 31PP; English.
OY	241 FGQTINQOKIAHASSAVQHVNLKEMNSLBEKVKLQNLQEVSKVKTSIOSLHNICSFET 300	XX CC The present invention relates to a protein comprising a CD40 receptor-associated factor 1 (CRAF1) truncated by about 323 - 414 amino acid residues at the amino terminus, or its variant, which is capable of inhibiting CD40-mediated cell activation. The protein is useful for treating a condition characterised by an aberrant or unwanted level of CD40-mediated intracellular signalling such as: organ refection, autoimmune diseases such as rheumatoid arthritis, myasthenia gravis, systemic lupus erythematosus, Grave's disease, idiopathic thrombocytopenia purpura, haemolytic anaemia, or diabetes mellitus, an allergic response (e.g. hay fever or a penicillin allergy), a condition dependent on CD40 ligand-induced activation of fibroblast cells (e.g. arthritis, scleroderma, or fibrosis), a condition dependent on CD40-ligand-induced activation of endothelial cells (e.g. atherosclerosis, reperfusion injury, allograft rejection, organ rejection, or chronic inflammatory autoimmune diseases, a condition dependent on CD40 ligand-induced activation of epithelial cell, specifically keratinocytes (e.g. psoriasis), or an inflammatory kidney disease (e.g. membranous glomerulonephritis, minimal change disease, acute tubular necrosis, pauci-immune glomerulonephritis, or focal segmental glomerulosclerosis). The present sequence is the human CRAF1 protein.
Db	301 ETEROKEMLRNNESKILHLQRVIDSQAEKIKLDEKREIRPRNNEBDSKSYESLQR 360	XX CC
OY	361 VTELESVDKSAGQVARNTGLESQSLSRDHOMLSVDIRLADMRLRFQVLETASVNGVLW 420	XX CC
Db	361 VTELESVDKSAGQVARNTGLESQSLSRDHOMLSVDIRLADMRLRFQVLETASVNGVLW 420	XX CC
OY	421 KIRDYKRRQKQAVMGKTLISYQPFYTYGRGYKMCARVYINGDMGKGTHLSTFFVIMG 480	XX CC
Db	421 KIRDYKRRQKQAVMGKTLISYQPFYTYGRGYKMCARVYINGDMGKGTHLSTFFVIMG 480	XX CC
OY	421 KIRDYKRRQKQAVMGKTLISYQPFYTYGRGYKMCARVYINGDMGKGTHLSTFFVIMG 480	XX CC
Db	421 KIRDYKRRQKQAVMGKTLISYQPFYTYGRGYKMCARVYINGDMGKGTHLSTFFVIMG 480	XX CC
OY	481 EYDALIPWPKFQVKVITMLMDOGSSRHLGAFAKPPNPNSSEPKPGEMNTASCPVFAQ 540	XX CC
Db	481 EYDALIPWPKFQVKVITMLMDOGSSRHLGAFAKPPNPNSSEPKPGEMNTASCPVFAQ 540	XX CC
OY	541 TYLENTVYKDDTIFIKIVWTDSDPDP 568	XX SQ Sequence 568 AA:
Db	541 TYLENTVYKDDTIFIKIVWTDSDPDP 568	XX Query Match 100.0%; Score 3008; DB 23; Length 568; Best Local Similarity 100.0%; Pred. No. 8e-239; Matches 568; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
	Qy 1 MESSKMDSPGALQPLKHTDRAAGTPVPEOGGYKEKFVKTVEDYKCEKCHLV 60	XX Qy
		RESULT 3

		Key	Location/Qualifiers
Db	1 MESSKKMDSPGALQTNPLKLHRTSAGTPVFEPEOGYKEKVKWTDKYKCKHLVL	52..122	FT Domain
QY	61 CSPKQTECHRCFSCMAILSSSSPKCTACQESIVKDKVFNDCCRELLAQLICRNE	120	/label= "CRAF-b domain"
Db	61 CSPKQTECHRCFSCMAILSSSSPKCTACQESIVKDKVFNDCCRELLAQLICRNE	120	/note= "Claim 1"
QY	121 SRGCAEQLTGHLLVHLNDCHIEELPVCVRDCKERYKVKRDHVACKREACTSHC	180	239..263
Db	121 SRGCAEQLTGHLLVHLNDCHIEELPVCVRDCKERYKVKRDHVACKREACTSHC	180	/note= "zinc finger 1 (Zn binding to Cys-239, Cys-246, His-258 and Cys-263)"
QY	181 KSQVPMIALQKHEDTDCPCVWVSPHKCSVOTLSELSEAHSECVNAPSTCSFKRGCV	240	270..292
Db	181 KSQVPMIALQKHEDTDCPCVWVSPHKCSVOTLSELSEAHSECVNAPSTCSFKRGCV	240	/note= "zinc finger 2 (zinc binding to CYS-270, Cys-275, His-287 and Cys-292)"
QY	241 FQGTNQQTKAHEASSAVQAVNLIKESWSNSLEKKVSLQNESTEKNKSTQSLHQICSPFI	300	299..319
Db	241 FQGTNQQTKAHEASSAVQAVNLIKESWSNSLEKKVSLQNESTEKNKSTQSLHQICSPFI	300	/note= "zinc finger 3 (Zn binding to Cys-299, Cys-302, His-314 and Cys-319)"
QY	301 EIERQKEMLRNNESKTLHILQRVIDQSAEKKIKELDETRPRFROWEADSMKSVESLQRN	360	326..347
Db	301 EIERQKEMLRNNESKTLHILQRVIDQSAEKKIKELDETRPRFROWEADSMKSVESLQRN	360	/note= "zinc finger 4 (Zn binding to Cys-326, His-343 and Cys-347)"
QY	361 VTELESVDKSGAVARNGLSLESRLSDRQMSVHDRLADMLRFQVLETASYNGVLW	420	354..381
Db	361 VTELESVDKSGAVARNGLSLESRLSDRQMSVHDRLADMLRFQVLETASYNGVLW	420	/note= "putative SH3 binding motif"
QY	421 KIRYKRRQEAVGKTSLSIISPFVIGFGKMCARYLINGDGMGKTHLSLEFFVIMRG	480	44..47
Db	421 KIRYKRRQEAVGKTSLSIISPFVIGFGKMCARYLINGDGMGKTHLSLEFFVIMRG	480	/note= "putative SH3 binding motif"
QY	481 EYDALLPWFVKVTLMLDQGSSRRHHGDAFPDPNNSFRRPTGEMNIASGCPVVAQ	540	103..110
Db	481 EYDALLPWFVKVTLMLDQGSSRRHHGDAFPDPNNSFRRPTGEMNIASGCPVVAQ	540	/note= "putative SH3 binding motif"
QY	541 TVLENQTYIKDTIFIKVIVDSDLDPD 568		
Db	541 TVLENQTYIKDTIFIKVIVDSDLDPD 568		
RESULT 4			
AAW27428			
XX	AAW27428 standard; Protein; 690 AA.		
AC			
XX			
DT	27-MAR-1998 (first entry)		
XX			
DE	Human CRAF1-b (TRAF-3-p70) polypeptide.		
XX			
CRAF1 receptor associated factor 1; TRAF-3; p70; human; CD40 mediated intracellular signalling; organ rejection; allergy; hay fever; autoimmune disease; systemic lupus erythematosus; rheumatoid arthritis; myasthenia gravis; Graves' disease; idiopathic thrombocytopenia purpura; haemolytic anaemia; diabetes mellitus; psoriasis; hyper immunoglobulin E syndrome; apoptosis; Rieger's syndrome; spondyloarthritis; Lyme disease; HIV; syphilis; tuberculosis; arthritis; scleroderma; pulmonary fibrosis; pneumoniosis; adult respiratory distress syndrome; pneumonia; asbestosis; silicosis; Farmer's lung; hepatitis; cirrhosis; atherosclerosis; multiple sclerosis; glomerulonephritis; glomerulosclerosis; glomerulopathy; kidney disease; nephropathy; endocarditis; leprosy; malaria; Goodpasture's disease; Henoch-Schoenlein purpura; polyarteritis; multiple myeloma; Wegener's granulomatosis; cryoimmunoglobulinaemia; Waldenstrom's macroglobulinaemia; amyloidosis; Sjögren's syndrome; AIDS; oesophageal dysmotility; inflammatory bowel disease; bladder disease; Epstein-Barr virus; B cell tumour; Burkitt's lymphoma; nasopharyngeal carcinoma; pneumonia; gene therapy; diagnosis.			
XX			
OS	Homo sapiens.		
XX			
PS	Example 1; Fig 1A-O; 158pp; English.		
XX			
CC	This polypeptide comprises a CRAF1 (TRAF-3) protein designated CRAF1-b or TRAF-3-p70 or p70 or CRAF1(p70) or TRAF-3(p70). It is encoded by exons 1-2 and 4-13 of the human CRAF gene (see AAC90123). A lower mol.wt. CRAF1, designated CRAF1a (see AAW27431), has also been identified, as well as isoforms p5 (see AAW27429), p15 (see AAW27430) and variants of CRAF-1a and CRAF-b (see AAW27432-37) that comprise different combinations of zinc fingers. CRAF1 peptides, comprising from 0-4 zinc finger domains, and nucleic acids encoding them, can be used to inhibit CD40 ligand activation of cells that express CD40 on their surface, particularly by introducing the nucleic acid molecule into the cells, useful to treat conditions characterised by an aberrant or unwanted level of CD40 mediated intracellular signalling, such as organ rejection, or a CRAF dependent immune response in a subject receiving gene therapy. The condition may be an allergic response or an autoimmune response, or may be dependent on CD40 ligand-induced activation of epithelial cells, an inflammatory kidney disease, a smooth muscle cell-dependent disease, or a condition associated with Epstein-Barr virus.		
SQ	Sequence 690 AA;		

	Query Match <sup>h</sup>	100.0%	Score 3008;	DB 18;	Length 690;	
	Best Local Similarity	100.0%	Pred. No. 1, 1.e-238;			
	Matches	568;	Conservative	0;	Mismatches	0;
					Indels	0;
					Gaps	0;
QY	1	MESSKKMDSPGALQTNPPLKLHIDRSGATPVFPVPEQGGYKEKVKVTKVEDYKCEKCHLV	60			
Db	123	MESSKKMDSPGALQTNPPLKLHIDRSGATPVFPVPEQGGYKEKVKVTKVEDYKCEKCHLV	182			
QY	61	CSPKOTECGHRCESMAALISSSSPKCTACQSIKVOKVKVKNCCKRETLAQIYCNE	120			
Db	183	CSPKOTECGHRCESMAALISSSSPKCTACQSIKVOKVKVKNCCKRETLAQIYCNE	242			
QY	121	SRGCAEQLTGHLLVHLKNDCHFEELPCVRDPCKEVLKRDVAKCYREATCSHC	180			
Db	243	SRGCAEQLTGHLLVHLKNDCHFEELPCVRDPCKEVLKRDVAKCYREATCSHC	302			
QY	181	KSQVPMIALQKHEDTCPVVSCPHKCSVOTLRLSELSEAHLSCLVCNAPSTCSFKRYGV	240			
Db	303	KSQVPMIALQKHEDTCPVVSCPHKCSVOTLRLSELSEAHLSCLVCNAPSTCSFKRYGV	362			
QY	241	FQGTNQOIKAEASSAVOHNLKNSLEKKVSLQNSVEKNSKIOSLHQICSFEL	300			
Db	363	FQGTNQOIKAEASSAVOHNLKNSLEKKVSLQNSVEKNSKIOSLHQICSFEL	422			
QY	301	EIEROKMLRNNESKILHORVIDSQAELKELDEKIRPRFROMWEADEMSKSVESLQR	360			
Db	423	EIEROKMLRNNESKILHORVIDSQAELKELDEKIRPRFROMWEADEMSKSVESLQR	482			
QY	361	VTELESVDKSAGQAVRNTGLLESOLSRHQLMVSVDRLADMLRQFLETASYNGLW	420			
Db	483	VTELESVDKSAGQAVRNTGLLESOLSRHQLMVSVDRLADMLRQFLETASYNGLW	542			
QY	421	KIRDYKRKRQEAVMGKTLISQPFTYGYKMCARVYINGDGMGKTHLSLFFVIMRG	480			
Db	543	KIRDYKRKRQEAVMGKTLISQPFTYGYKMCARVYINGDGMGKTHLSLFFVIMRG	602			
QY	481	EYDALLPWPWPKQYTMLMQDGSSRRHGDADFPPDNSSSFKPTGEINTASCPVFAQ	540			
Db	603	EYDALLPWPWPKQYTMLMQDGSSRRHGDADFPPDNSSSFKPTGEINTASCPVFAQ	662			
QY	541	TVELGNTYKDDTFPIKVIVDSDLPDP	568			
Db	663	TVELGNTYKDDTFPIKVIVDSDLPDP	690			
RESULT 5						
AAW03146						
ID	AAW03146 standard; Protein; 568 AA.					
XX						
AAW03146;						
XX						
DT	23-OCT-1996 (first entry)					
XX						
DE	LMP1 associated protein LAMP1.					
XX						
KW	LAMP1: LAMP1 associated protein 1; latent infection membrane protein; tumour necrosis factor receptor associated factor; TRAF; signal transduction; TNF; TNFR; lymphoblast; tumorigenesis; AIDS; Hodgkin's disease; Burkitt's lymphoma; nasopharyngeal carcinoma; mononucleosis; Epstein-Barr virus; EBV; therapy.					
XX						
OS	Homo sapiens.					
XX						
FH	Location/Qualifiers					
Key	245..568					
Domain	/label= LMP1-Binding_domain					
FT	309..341					
Domain	/label= Coiled-coil_domain					
FT	406..568					
Domain	/label= Carboxy-terminal domain					
XX	W09520723-A1.					
XX						
PD	11-JUL-1996.					
XX						
PF	28-DEC-1995;					
XX	95WO-US16980.					
PR	30-DEC-1994;					
XX	94US-0367540.					
PA	( BGHM ) BRIGHAM & WOMENS HOSPITAL.					
PA	( RBGC ) UNIV CALIFORNIA.					
PI	Birkenbach M, Kaye KM, Kieff E, Mosialos G, vanarsdale T;					
PI	Ware C;					
XX						
DR	WPI: 1996-333765/33.					
XX	N-PSDB; AAT31273.					
PT	Compounds and methods for controlling TRAF-mediated signals - by modulating interactions between Epstein Barr virus encoded proteins					
PT	LMP1, LMP1, TNF, TNFR to inhibit lymphoblast growth and tumorigenesis.					
PT	Claim 74; Page 58-60; 87PP; English.					
CC	A novel human B-cell protein (AAW03146), termed LMP1 associated protein (AAW03148) of Epstein-Barr virus (EBV) latent infection membrane protein (LMP1), a domain that is stringently required for transformed cell growth. LMP1 is related to murine tumour necrosis factor receptor associated factor TRAF2. A related novel B-cell protein (AAW03147), CC appears to be the human homologue of murine TRAF1. LMP1 polypeptides, esp. the LMP1 binding domain, coiled coil domain and C-terminal domain can be used to inhibit LMP1-TRAF interaction. Such polypeptides, which may be obt'd. by recombinant means (see CC also AAT31273) can be used to treat infection and control cell growth or tumourigenesis associated with LMP1-encoding viruses, partic. EBV.					
CC	Sequence 568 AA:					
QY	Query Match 99.8%; Score 3002; DB 17; Length 568;					
Best Local Similarity	99.8%					
Matches	567;					
QY	1	MESSKKMDSPGALQTNPPLKLHIDRSGATPVFPVPEQGGYKEKVKVTKVEDYKCEKCHLV	60			
Db	1	MESSKKMDSPGALQTNPPLKLHIDRSGATPVFPVPEQGGYKEKVKVTKVEDYKCEKCHLV	180			
QY	61	CSPKOTECGHRCESMAALISSSSPKCTACQSIKVOKVKVKNCCKRETLAQIYCNE	120			
Db	61	CSPKOTECGHRCESMAALISSSSPKCTACQSIKVOKVKVKNCCKRETLAQIYCNE	240			
QY	121	SRGCAEQLTGHLLVHLKNDCHFEELPCVRDPCKEVLKRDVAKCYREATCSHC	180			
Db	121	SRGCAEQLTGHLLVHLKNDCHFEELPCVRDPCKEVLKRDVAKCYREATCSHC	302			
QY	181	KSQVPMIALQKHEDTCPVVSCPHKCSVOTLRLSELSEAHLSCLVCNAPSTCSFKRYGV	240			
Db	181	KSQVPMIALQKHEDTCPVVSCPHKCSVOTLRLSELSEAHLSCLVCNAPSTCSFKRYGV	362			
QY	241	FQGTNQOIKAEASSAVOHNLKNSLEKKVSLQNSVEKNSKIOSLHQICSFEL	300			
Db	361	FQGTNQOIKAEASSAVOHNLKNSLEKKVSLQNSVEKNSKIOSLHQICSFEL	420			
QY	421	KIRDYKRKRQEAVMGKTLISQPFTYGYKMCARVYINGDGMGKTHLSLFFVIMRG	480			
Db	421	KIRDYKRKRQEAVMGKTLISQPFTYGYKMCARVYINGDGMGKTHLSLFFVIMRG	602			

QY 481 EYDALLPPWPKQKVTLMLMDQGSSRRHLGDAFKPFDNNSSPKPKPGEMNTASGCDFVVAQ 540  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 481 EDALLPPWPKQKVTLMLMDQGSSRRHLGDAFKPDPNSSPKPKPGEMNTASGCDFVVAQ 540  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 541 TVLNGTYIKDTTIFIKVIVDSDLDP 568  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 541 TVLNGTYIKDTTIFIKVIVDSDLDP 568  
 ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

RESULT 6  
 AAB67615 ID AAB67615 standard; Protein; 567 AA.  
 XX AC AAB67615;  
 DT 29-MAY-2001 (first entry)  
 XX DE Amino acid sequence of human CD40 ligand.  
 XX CD40 ligand; osteoblast cell death; apoptosis; bone loss;  
 XX osteoporosis; osteonecrosis; inflammatory arthritis; estrogen loss;  
 XX orchiectomy; historectomy; lupus nephritis; Takayasu's arteritis;  
 KW Wegener's granulomatosis; nephritis; myositis; scleroderma;  
 KW thrombocytopenia; asthma; lung disease; cancer.  
 XX OS Homo sapiens.  
 XX WO200116180-A2.  
 XX PD 08-MAR-2001.  
 XX PF 24-AUG-2000; 2000WO-US23276.  
 XX PR 27-AUG-1999; 99US -015120.  
 XX PA (TEXA ) UNIV TEXAS SYSTEM.  
 XX PT Ahuja SS, Bonewald LF;  
 XX DR WPI; 2001-169007-17.  
 XX N-PSDB; AAF55540.  
 XX PT CD40 agonist containing composition, used to reduce bone cell death or  
 PT apoptosis - associated with osteoporosis, osteonecrosis and inflammatory  
 PT arthritis -  
 XX PS Disclosure; Page 116-118; 118pp; English.  
 XX The present sequence represents a human CD40 ligand. CD40 ligands are  
 CC used for reducing osteoblast cell death or apoptosis, and for treating  
 CC or preventing bone loss in animals, Preferably humans, at risk of,  
 CC or undergoing, bone loss. The bone loss is associated with osteoporosis,  
 CC osteonecrosis, inflammatory arthritis, post-menopausal oestrogen loss,  
 CC esteroegen loss due to ovariectomy, total historectomy, lupus nephritis,  
 CC Takayasu's arteritis, Wegener's granulomatosis, anti-glomerular basement  
 CC membrane nephritis, myositis, scleroderma, idiopathic autoimmune  
 CC thrombocytopenia, asthma, a chronic obstructive lung disease,  
 CC nephrotic/nephritic syndrome, or cancer. They may also be used to  
 CC treat or prevent bone loss in a subject undergoing, or scheduled for,  
 CC an organ or bone marrow transplant.  
 XX SQ Sequence 567 AA;

Query Match 99.1%; Score 2980.5; DB 22; Length 567;  
 Best Local Similarity 99.5%; Pred. No. 1 5e-236;  
 Matches 565; Conservative 0; Mismatches 2; Indels 1; Gaps 1;

QY 1 MSSSKMDSPGALQTNPPLKHTDRSAGTPVFPVPEOGGYKEFKVTFEDVKYCEKHLVL 60  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 1 MSSSKMDSPGALQTNPPLKHTDRSAGTPVFPVPEOGGYKEFKVTFEDVKYCEKHLVL 60  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||

QY 61 CSPKQTECGHRFCSCMAAIISSSSPKCTACOESIVKDKVKFKNCCRELLAQIVCRN 120  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 61 CSPKQTECGHRFCSCMAAIISSSSPKCTACOESIVKDKVKFKNCCRELLAQIVCRN 120  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 121 SRGCAEQLTGHVLVHKLNDCHFHEELPWRPOCKEVKLRKDHRVHKACKRREATCSC 180  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 121 SRGCAEQLTGH-LVHLRNKNDCHFHEELPCVRPDCEKEVKLRKDHRVHKACKRREATCSC 179  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 181 KSQPMIAQKHEPDPCPVWSCPHKCSWQTLSELSAHLSCECVNAP-SIUCSFKRYGV 240  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 180 KSQPMIAQKHEPDPCPVWSCPHKCSWQTLSELSAHLSCECVNAP-SIUCSFKRYGV 239  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 241 FOGTNOQTAKHEASSAVQVNLLKEWSNLKRSVLLQNESEVKNSIQSLHQICSEI 300  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 240 FOGTNQQIKAHEASSAVQVNLLKEWSNLKRSVLLQNESEVKNSIQSLHQICSEI 299  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 360 VTELESVDQSAQYARNQTLLESQSLRQMLSVHDRLADLDRQVLEASYNVLW 420  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 421 KIRDYKRKQEAVGKTLSLISQSPFTGFGYKMCARYTLNGDMGKGTHSLFFVIMR 480  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 420 KIRDYKRKQEAVGKTLSLISQSPFTGFGYKMCARYTLNGDMGKGTHSLFFVIMR 479  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 360 VTELESVDQSAQYARNQTLLESQSLRQMLSVHDRLADLDRQVLEASYNVLW 419  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 481 EYDALLPPWPKQKVTLMLMDQGSSRRHLGDAFKPDPNSSPKPTGEMNTASGCDFVVAQ 540  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 480 EYDALLPPWPKQKVTLMLMDQGSSRRHLGDAFKPDPNSSPKPTGEMNTASGCDFVVAQ 539  
 ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 QY 541 TVLNGTYIKDTTIFIKVIVDSDLDP 568  
 ||||||| ||||||| ||||||| ||||||| ||||||| |||||||  
 DB 540 TVLNGTYIKDTTIFIKVIVDSDLDP 567  
 ||||||| ||||||| ||||||| ||||||| |||||||

RESULT 7  
 AAR99259 ID AAR99259 standard; Protein; 567 AA.  
 XX AC AAR99259;  
 XX DT 06-DEC-1996 (first entry)  
 XX DE Full-length CD40 binding protein.  
 XX KW CD40 binding protein; CD40bp; immunosuppressive; immune disorder;  
 KW antibody; therapy.  
 XX OS Homo sapiens.  
 XX Key Location/Qualifiers  
 FT Domain 49..97 /label= RING\_finger\_domain  
 FT Domain 266..375 /label= Coiled-coil\_domain  
 FT Domain WO9628568-A1.  
 XX PD 19-SEP-1996.  
 XX PF 24-MAY-1995; 95WO-US06623.  
 XX PR 13-MAR-1995; 95US-0404832.  
 XX PA (UNMI ) UNIV MICHIGAN.  
 XX PT Dxit VM;  
 XX DR WPI; 1996-433838/43.  
 XX N-PSDB; RAT35251.  
 XX PT New isolated CD40 receptor binding protein - used to develop prods.  
 PT for use as immunosuppressive drugs and to treat immune disorders.

XX  
PS Example 5; Page 41-43; 65pp; English.  
XX  
A novel human CD40 receptor binding protein (CD40bp) (AAR9259) has  
the ability to bind the cytoplasmic region of the CD40 receptor.  
CC Its amino acid sequence was deduced from a cDNA clone (AAU3251).  
CC obt. from a human B-cell cDNA expression library using a yeast  
two-hybrid system. Recombinant CD40bp can be produced in  
CC prokaryotic or eukaryotic host cells. It can be utilised in the  
purification of CD40 receptors or the detection CD40 in cell or  
tissue samples. It is also useful as an immunogen for prodn. of  
CC anti-CD40bp antibodies, and can be used in an in vitro assay.  
CC system to screen for immunosuppressant drugs.

SQ Sequence 567 AA;

	Query Match	98.8%	Score 2970.5;	DB 17;	Length 567;	
	Best Local Similarity	99.3%	Pred. No. 9	Be-236;		
	Matches	564;	Conservative	0;	Mismatches	3;
QY	1	MESSKKMDSPGALQTNPLKLHDTSAGTPTVPEOGGYKEFKVKVTEDKYKCEKHLV	60			
Db	1	MESSKKMDSPGALQTNPLKLHDTSAGTPTVPEOGGYKEFKVKVTEDKYKCEKHLV	60			
QY	61	CSPKQTECGHRCECSMAALLSSSSPKCTACOESIVKDKVFDKNCCKRETLAQYCRNE	120			
Db	61	CSPKQTECGHRCECSMAALLSSSSPKCTACOESIVKDKVFDKNCCKRETLAQYCRNE	120			
QY	121	SRCGAEBOLTLGLLVLHKNDCHEELPCVRDCKEYKLRLDRIVEACKYREATCSC	180			
Db	121	SRCGAEBOLTLGLLVLHKNDCHEELPCVRDCKEYKLRLDRIVEACKYREATCSC	180			
QY	180	KSQVPMALQKEDTDOPCPVWNSCPHKSQYTLSELSELSAHLSSECVNAPSTCSFRYGC	240			
Db	180	KSQVPMALQKEDTDOPCPVWNSCPHKSQYTLSELSELSAHLSSECVNAPSTCSFRYGC	240			
QY	241	FQGTNQDQIKAHRAASSAVQHVNLKENSLEBKVSILQNSVEKRSKIOSLHQICFEI	300			
Db	240	FQGTNQDQIKAHRAASSAVQHVNLKENSLEBKVSILQNSVEKRSKIOSLHQICFEI	299			
QY	301	ETERQKEMLRNNESKTLHLRORVIDSQAEKIREDLKIRPQRNRNHEADSKSVESLQR	360			
Db	300	ETERQEMLRNNESKTLHLRVIDSQAEKIREDLKIRPQRNRNHEADSKSVESLQR	359			
QY	361	VTELESVDKSAGQAVARTNGLLESQSLRSRHDQMLSVDIRLADMRLRFQVLETASINGVLW	420			
Db	360	VTELESVDKSAGQAVARTNGLLESQSLRSRHDQMLSVDIRLADMRLRFQVLETASINGVLW	419			
QY	421	KIRDYKRKRQJQAVMGKTLISQPPRTGTYKMKARVYINGDGKGKHLIFPVIMG	480			
Db	420	KIRDYKRKRQJQAVMGKTLISQPPRTGTYKMKARVYINGDGKGKHLIFPVIMG	479			
QY	481	EYDALLPWPEKKVLTLMPOGSSRRLGSAFKPDPNSSSFKPTGEMMIAASCOPVFAQ	540			
Db	480	EYDALLPWPEKKVLTLMPOGSSRRLGSAFKPDPNSSSFKPTGEMMIAASCOPVFAQ	539			
QY	541	TVLLENTRYIKDTIFIKVYDTPSLDPP	568			
Db	540	TVLLENTRYIKDTIFIKVYDTPSLDPP	567			

KW kidney disease; vascular disease; gastrointestinal disease; vasotropic;  
KW immunosuppressive; anti-inflammatory; nephrotropic; antiallergic;  
KW anti-tanacemic; anti-thyroid; anti-rheumatic; antiarthritic; cardiot;  
KW dermatological; haemostatic; antiarteriosclerotic;  
CC antipsoriatic; bladder disease; human herpesvirus 4; Epstein-Barr virus.  
XX OS Mus sp.  
XX PN US2002031522-A1.  
PD 14-MAR-2002.  
XX PR 10-MAR-1997; 97US-0813323.  
XX PR 11-MAR-1996; 96US-013199P.  
XX PA (BALTIMORE) BALTIMORE D.  
PA (CHEN,) CHENG G.  
PA (YEZZ,) YE Z.  
PA (LEDE,) LEDERMAN S.  
PA (CLEA,) CLEARY A.  
XX PT Baltimore D, Cheng G, Ye Z, Lederman S, Cleary A;  
DR WPI; 2002-45149/48.  
DR N-PSDB; AAL46792.

XX PT New CD40 mediated cell activation, useful for treating e.g. inflammatory diseases, autoimmune diseases, allergic reaction, or organ transplant rejection

XX PT Disclosure; Fig 1; 31pp; English.

The present invention relates to a protein comprising a CD40 receptor-associated factor 1 (craf1) truncated by about 323 - 414 amino acid residues at the amino terminus, or its variant, which is capable of inhibiting CD40-mediated cell activation. The protein is useful for treating a condition characterized by an aberrant or unwanted level of CD40-mediated intracellular signalling, such as: organ refection, autoimmune diseases such as rheumatoid arthritis, myasthenia gravis, systemic lupus erythematosus, idiopathic thrombocytopenia purpura, haemolytic anaemia, or diabetes mellitus, an allergic response (e.g. hay fever or a penicillin allergy), a condition dependent on CD40 ligand-induced activation of fibroblast cells (e.g. arthritis, scleroderma or fibrosis), a condition dependent on CD40 ligand-induced activation of endothelial cells (e.g. atherosclerosis, reperfusion injury, allograft rejection, organ rejection, or chronic inflammatory autoimmune diseases, a condition dependent on CD40 ligand-induced activation of epithelial cell, specifically keratinocytes (e.g. psoriasis), or an inflammatory kidney disease (e.g. membranous glomerulonephritis, minimal change disease/acute tubular necrosis, pauci-immune glomerulonephritis, or focal segmental glomerulosclerosis). The present sequence is the murine craf1 protein.

SQ Sequence 567 AA;

	Query Match	96.0%	Score 2886.5;	DB 23;	Length 567;	
	Best Local Similarity	96.1%	Pred. No. 8	Be-229;		
	Matches	546;	Conservative	7;	Mismatches	14;
QY	1	MESSKKMDSPGALQTNPLKLHDTSAGTPTVPEOGGYKEFKVKVTEDKYKCEKHLV	60			
Db	1	MESSKKMDAAGTLPQNPPLKLHDTSAGTPTVPEOGGYKEFKVKVTEDKYKCEKHLV	59			
QY	61	CSPKQTECGHRCECSMAALLSSSSPKCTACOESIVKDKVFDKNCCKRETLAQYCRNE	120			
Db	60	CSPKQTECGHRCECSMAALLSSSSPKCTACOESIVKDKVFDKNCCKRETLAQYCRNE	119			
QY	121	SRCGAEBOLTLGLLVLHKNDCHEELPCVRDCKEYKLRLDRIVEACKYREATCSC	180			
Db	120	SRCGAEBOLTLGLLVLHKNDCHEELPCVRDCKEYKLRLDRIVEACKYREATCSC	179			

RESULT 8  
AAU1756  
ID AAU1756 standard; protein; 567 AA;  
XX AC AAU1756;  
AC DT 15-AUG-2002 (first entry)  
DE Murine CD40 receptor-associated factor 1 (CRAF1).  
XX Mouse; CD40 receptor-associated factor 1; CRAF1; organ rejection;  
KW autoimmune disease; apoptosis; infection; fibrosis; liver disease;



RESULT 11	
AaW27433	
ID	AaW27433 standard; Protein; 665 AA.
XX	
AC	AaW27433;
XX	
DT	27-MAR-1998 (first entry)
XX	
DE	Human CRAF1-b isoform p70del9.
XX	
KW	CRAF1 receptor associated factor 1; CRAF1-b; TRAF-3; p70; human; CD40 mediated intracellular signalling; organ rejection; allergy; hay fever; autoimmune disease; systemic lupus erythematosus; rheumatoid arthritis; myasthenia gravis; Graves' disease; idiopathic thrombocytopaenia purpura; haemolytic anaemia; diabetes mellitus; psoriasis; hyper immunoglobulin E syndrome; apoptosis; Rieger's syndrome; spondyloarthritis; Lyme disease; HIV; syphilis; tuberculosis; arthritis; scleroderma; pulmonary fibrosis; pneumoconiosis; adult respiratory distress syndrome; pneumonia; asbestosis; silicosis; Farmer's lung; hepatitis; cirrhosis; atherosclerosis; multiple sclerosis; glomerulonephritis; glomerulosclerosis; glomerulopathy; kidney disease; nephropathy; endocarditis; leprosy; malaria; Goodpasture's disease; Henoch-Schoenlein purpura; polyarteritis nodosa; multiple myeloma; Wegener's granulomatosis; cryoglobulinemia;
KW	



PD	06-JUN-1996.	Db	516 TVLЕНГTYИKDTIFKVWTSЛРDP 543
XX		ID	AAW27436 standard; Protein; 516 AA.
PF	04-DEC-1995;	AAW27436;	
XX	95MO-0515695.		
PR	02-DEC-1994;	DT	27-MAR-1998 (first entry)
XX	94US-0349357.		
PA	(LYOL-) LA JOLLA CANCER RES FOUND.		
XX	N-PSDB; AAT30773.		
PT	New CD40 associated protein, agonists and antagonists - used to modulate cell proliferation, immune response, apoptosis etc., e.g. for treating cancer or autoimmune disease		
XX			
PS	Claim 3; Fig 1; 94pp; English.		
XX	This is a CD40 associated protein (CAP)-1. This CAP is a protein that specifically binds to CD40, a cell surface receptor involved in apoptosis. Agonists and antagonists of CAP can increase or decrease the level of CAP expression in a cell and can thereby modulate the function of the cell. Such compounds can be used to treat cancer, autoimmune diseases like asthma, hay fever, rheumatoid arthritis and immunodeficiency diseases and neurodegeneration. Antibodies that bind specifically to CAP can be used to assay CAP, to detect pathologically altered levels. The encoding nucleic acid can be used to identify related genes and to express CAP for gene therapy.		
XX	Sequence 543 AA:		
	Query Match 94.1%; Score 2831.5; DB 17; Length 543; Best Local Similarity 95.2%; Pred. No. 2.6e-224; Mismatches 0; Indels 25; Gaps 1; Matches 541; Conservative 0; OS Homo sapiens.		
QY	1 MASSKKNDSPGALQTNPLKLTIDRAGTPVPPEGGYKEKFVKVVEDKXCEKCHLV 60	XX	
DP	1 MESSKKNDSPGALQTNPLKLTIDRAGTPVPPEGGYKEKFVKVVEDKXCEKCHLV 60	FH	
QY	61 CSPKQTECGHRCSMALLSSSSPKCTACQESTIVDKYFKDNGCKRETLALQYCRNE 120	FT	
DP	61 CSPKQTECGHRCSMALLSSSSPKCTACQESTIVDKYFKDNGCKRETLALQYCRNE 120	FT	
QY	121 SGCAQSLTGLHLVHLKNDCHFEELPCVPRDCCKERVLKDRLIVEACKYRETCSC 180	Region	/note= "Claim 1"
DP	121 SGCAQSLTGLHLVHLKNDCHFEELPCVPRDCCKERVLKDRLIVEACKYRETCSC 180	FT	239..263
QY	181 KSQVPMALQHEDTCPVCVWSPCPKSQVLLSELSAHLSECVNAPSTCSFRRYGC 240	FT	/note= "zinc finger 1 (zn binding to Cys-239, Cys-246, His-258 and Cys-263)"
DP	181 KSQVPMALQHEDTCPVCVWSPCPKSQVLLSELSAHLSECVNAPSTCSFRRYGC 240	FT	270..292
QY	241 FGQTNGQIAHEBASSAVQHVNLKEMNSLEKVKVLLQNESVEKVKSIOSLHNOCSEI 300	FT	/note= "zinc finger 2 (zinc binding to Cys-270, Cys-275, His-287 and Cys-292)"
DP	241 FGQTNGQIAHEBASSAVQHVNLKEMNSLEKVKVLLQNESVEKVKSIOSLHNOCSEI 300	FT	16..19
QY	218 -GTNQIQKANERASSAVQHVNLKEMNSLEKVKVLLQNESVERKVKSIOSLHNOCSEI 275	FT	/note= "putative SH3 binding motif"
DP	218 -GTNQIQKANERASSAVQHVNLKEMNSLEKVKVLLQNESVERKVKSIOSLHNOCSEI 275	FT	44..47
QY	301 ETEROKEMLRNNESKTHLORVIDSQAEKJKEIRPRQNNEADMSKSVESLQRN 360	FT	/note= "putative SH3 binding motif"
DP	301 ETEROKEMLRNNESKTHLORVIDSQAEKJKEIRPRQNNEADMSKSVESLQRN 360	FT	103..110
QY	276 ETEROKEMLRNNESKTHLORVIDSQAEKJKEIRPRQNNEADMSKSVESLQRN 335	FT	/note= "putative SH3 binding motif"
DP	276 ETEROKEMLRNNESKTHLORVIDSQAEKJKEIRPRQNNEADMSKSVESLQRN 335	FT	PN WO9734473-A1.
QY	361 VTELEVUDKSAGQVARNTGLESQLSRHDMVLSVDRIRADMURQFVETASINGVLW 420	XX	
DP	361 VTELEVUDKSAGQVARNTGLESQLSRHDMVLSVDRIRADMURQFVETASINGVLW 420	PD	25-SEP-1997.
QY	336 VTELEVUDKSAGQVARNTGLESQLSRHDMVLSVDRIRADMURQFVETASINGVLW 395	XX	
DP	336 VTELEVUDKSAGQVARNTGLESQLSRHDMVLSVDRIRADMURQFVETASINGVLW 395	PF	21-MAR-1997; 97WO-US05076.
QY	421 KIRDYKRGKQAVMGKTLSYSPRTYGGYKMCARVYINGDGKGRHLSLPFFVIMG 460	XX	
DP	421 KIRDYKRGKQAVMGKTLSYSPRTYGGYKMCARVYINGDGKGRHLSLPFFVIMG 460	PR	18-SEP-1996; 96US-0026584.
QY	396 KIRDYKRGKQAVMGKTLSYSPRTYGGYKMCARVYINGDGKGRHLSLPFFVIMG 455	PR	21-MAR-1996; 96US-0013820.
DP	396 KIRDYKRGKQAVMGKTLSYSPRTYGGYKMCARVYINGDGKGRHLSLPFFVIMG 455	PR	01-MAY-1996; 96US-0016626.
QY	481 EYDALLPWPFWKQVYLMLMDOGSRRHLGDAFKDPNNSFSKPKTGEMNIASCPVFAQ 510	PR	01-MAY-1996; 96US-0016659.
DP	481 EYDALLPWPFWKQVYLMLMDOGSRRHLGDAFKDPNNSFSKPKTGEMNIASCPVFAQ 510	PR	01-MAY-1996; 96US-0016659.
QY	456 EYDALLPWPFWKQVYLMLMDOGSRRHLGDAFKDPNNSFSKPKTGEMNIASCPVFAQ 515	PR	
DP	456 EYDALLPWPFWKQVYLMLMDOGSRRHLGDAFKDPNNSFSKPKTGEMNIASCPVFAQ 515	PR	
QY	541 TYLENGLTIKDTITIKWVWTSЛРDP 568	XX	
	(UWCO ) UNIV COLUMBIA NEW YORK.		
	Cleary AM, Frank DM, Lederman S;		
	WPI: 1997-479907/44.		
	N-PSDB; AAT90123.		
	Protein comprising CRAF1-b domain capable of inhibiting CD40		

PT mediated cell activation - useful to treat conditions characterised  
PT by aberrant or unwanted level of CD40 mediated intracellular  
PT signalling

XX Example 1; Fig 1A-O; 158pp; English.

This polypeptide comprises a CRAFL (TRAF-3) protein designated p70del8,9 that is encoded by exons 1-2, 4-7 and 10-13 of the human CRAF gene (see AAT90123). different isoforms (AAW27428-37) of CRAF have been identified that arise from alternative splicing. CRAFL peptides comprising from 0-4 zinc finger domains and nucleic acids encoding them, can be used to inhibit CD40 ligand activation of cells that express CD40 on their surface, particularly by introducing the nucleic acid molecule into the cells, and used to treat conditions characterised by an aberrant or unwanted level of CD40 mediated intracellular signalling, such as organ refection, or a CD40 dependent immune response in a subject receiving gene therapy. The condition may be an allergic response or an autoimmune response, or may be dependent on CD40 ligand-induced activation of epithelial cells, an inflammatory kidney disease, a smooth muscle cell-dependent disease, or a condition associated with Epstein-Barr virus.

XX Sequence 516 AA;

Query Match 89.1%; Score 2680; DB 18; Length 516;

Best Local Similarity 90.8%; Pred. No. 7.1e-212; Mismatches 0; Indels 52; Gaps 1; Matches 516; Conservative 0; Mismatches 0; Indels 52; Gaps 1;

DE

XX Human CRAFL-b isoform P70del8,9.

XX CD40 receptor associated factor 1; CRAFL-b; TRAF-3; p70; human;

XX p70del8,9; receptor associated factor 1; CRAFL-b; TRAF-3; p70; human; p70del8,9; different isoforms (AAW27428-37) of CRAF

XX CC different isoforms (AAW27428-37) of CRAF

XX CC CRAFL peptides comprising from 0-4 zinc finger domains and nucleic acids

XX CC encoding them, can be used to inhibit CD40 ligand activation of

XX CC cells that express CD40 on their surface, particularly by

XX CC introducing the nucleic acid molecule into the cells, and used to

XX CC treat conditions characterised by an aberrant or unwanted level of

XX CC CD40 mediated intracellular signalling, such as organ refection, or

XX CC a CD40 dependent immune response in a subject receiving gene

XX CC therapy. The condition may be an allergic response or an

XX CC autoimmune response, or may be dependent on CD40 ligand-induced

XX CC activation of epithelial cells, an inflammatory kidney disease, a

XX CC smooth muscle cell-dependent disease, or a condition associated

XX CC with Epstein-Barr virus.

XX Sequence 516 AA;

Query Match 89.1%; Score 2680; DB 18; Length 516;

Best Local Similarity 90.8%; Pred. No. 7.1e-212; Mismatches 0; Indels 52; Gaps 1; Matches 516; Conservative 0; Mismatches 0; Indels 52; Gaps 1;

DE

XX 1 MESSKKMDSGALQNPPLKLHDSAGTVEVPRGGYKEKFKVTDKYKCEKCHLV 60

Db 1 MESSKKMDSGALQNPPLKLHDSAGTVEVPRGGYKEKFKVTDKYKCEKCHLV 60

Qy 61 CSPKQTECGRFCESOMAAILLSSSSPKCRAQESVVKDKVFKNCKRETLAQIYCNE 120

Db 61 CSPKQTECGRFCESOMAAILLSSSSPKCRAQESVVKDKVFKNCKRETLAQIYCNE 120

Qy 121 SRGCAQBQLTGHLLVHLKNDCHFEELPCVRPDKCERKVLRKDLRHKVEACKYRATCSHC 180

Db 121 SRGCAQBQLTGHLLVHLKNDCHFEELPCVRPDKCERKVLRKDLRHKVEACKYRATCSHC 180

Qy 181 KSQVPMIALKHDTPCPVVSCPHICSVQTLRLSELSEAHLSSECVNABSTCSTKRYGV 240

Db 181 KSQVPMIALKHDTPCPVVSCPHICSVQTLRLSELSEAHLSSECVNABSTCSTKRYGV 240

Qy 241 FGTTGNDQIAKAHASSAVOHYNLKEKYSVILQNESVERNKSIOSLHNQICSFET 300

Db 190 -QGTGNQIAKAHASSAVOHYNLKEKYSVILQNESVERNKSIOSLHNQICSFET 248

Qy 301 ETERQEMLRNNEKSTIHLQRVIDSOAKLKELDKEIRPFRQNWEADSMSKSYSLQRN 360

Db 249 ETERQEMLRNNEKSTIHLQRVIDSOAKLKELDKEIRPFRQNWEADSMSKSYSLQRN 308

XX Key location/Qualifiers

XX Domain 52..122

XX /label= "CRAFL-b domain"

XX /note= "Claim 1"

XX Region 239..263

XX /note= "Zinc finger 1 (Zn binding to Cys-239,

XX FT Region 270..292

XX /note= "Zinc finger 2 (zinc binding to Cys-270,

XX FT Binding-site 16..19

XX /note= "putative SH3 binding motif"

XX FT Binding-site 44..47

XX /note= "putative SH3 binding motif"

XX FT Binding-site 103..110

XX /note= "putative SH3 binding motif"

XX PN WO9734473-A1.

XX PD 25-SEP-1997.

XX PF 97WO-US05076.

XX PR 18-SEP-1996; 96US-0026584.

XX PR 21-MAR-1996; 96US-0013820.

XX PR 21-MAY-1996; 96US-0016626.

XX PR 01-MAY-1996; 96US-0016659.

XX PA (UYCO ) UNIV COLUMBIA NEW YORK.

XX PI Cleary AM, Frank DM, Lederman S;

XX DR WPI: 1997-47907/44.

XX DR N-PSDB; AAT90123.

XX Protein comprising CRAFL-b domain capable of inhibiting CD40 mediated cell activation - useful to treat conditions characterised by aberrant or unwanted level of CD40 mediated intracellular signalling

XX Example 1; Fig 1A-O; 158pp; English.

XX This polypeptide comprises a CRAFL (TRAF-3) protein designated

RESULT 14  
AAW27437 standard; Protein: 638 AA.  
ID AAW27437



CC and used to treat conditions characterised by an aberrant or  
 CC unwanted level of CD40 mediated intracellular signalling, such as  
 CC organ refection, or a CD40 dependent immune response in a subject  
 CC receiving gene therapy. The condition may be an allergic response  
 CC or an autoimmune response, or may be dependent on CD40 ligand-  
 CC induced activation of epithelial cells, an inflammatory kidney  
 CC disease, a smooth muscle cell-dependent disease, or a condition  
 CC associated with Epstein-Barr virus.

XX	sequence	512 AA;
	Query Match	88.9%; Score 2674; DB 18; Length 512;
	Best Local Similarity	90.1%; Pred. No. 2.2e-211;
	Matches	512; Conservative 0; Mismatches 0; Gaps 1;
	Db	Indels 56;
OY	1	MESSKKMDSPGALQNPPIKLHTDRSAGTTPVVFPEQGGYKEIPEVKTFEDKYCEKCHLVL 60
QY	61	CSPKQTECGHRCESMAAIISSSPKCTACOESIVKVKFVKKVKTEDKYCEKCHLVL 60
Db	61	CSPKQTECGHRCESMAAIISSSPKCTACOESIVKVKFVKKVKTEDKYCEKCHLVL 60
OY	121	SRGCAQOLTHLJUHKLKDCHFEELRCPDCEKVKLDHDVETACKREACTCSHC 180
Db	121	SRGCABOLTLGHLLVHLKNPQHFEELPCVPRDCKEVKVLRDHRVEACKREACTCSHC 180
QY	181	KSQVPMIALQHEDPDCPVWSCHHKCSYQTLRSLSAHLCSECVNAPSTCSFKRYGV 240
Db	181	KSQVPMIALQHEDPDCPVWSCHHKCSYQTLRSLSAHLCSECVNAPSTCSFKRYGV 240
OY	241	FOGTNOOKIAHASSAVQHVNLKEWNSLEKKVSLQNEVEKNSIQSHNQICSEI 300
Db	218	-----VSLLQNEVERNKSTOSLHNQICSEI 244
OY	301	EIEROKEMLRNNESKILHQLORYTDQSQAELKEELDEIRPFRQNWEADESMKSVESLQR 360
Db	245	EIEROKEMLRNNESKILHQLQVIDSOAREKELDEIRPFRQNWEADESMKSVESLQR 304
OY	361	VTELESVDKSAGQVANTGLESQSLRSRHDOMLSSVDIRLADMDFQVETASYNGVILW 420
Db	305	VTELESVDKSAGQVANTGLESQSLRSRHDOMLSSVDIRLADMDFQVETASYNGVILW 364
OY	421	KIRDYKRRQEAWMGKTLISLQSPPFTGYRGKMCARVYLNGDGKGTHLSSLFFVIMRG 480
Db	365	KIRDYKRRQEAWMGKTLISLQSPPFTGYRGKMCARVYLNGDGKGTHLSSLFFVIMRG 424
OY	481	EXPALLEWPFPKQKVTLIMDQGSSRRHLGDAFKPDENSSFFKPGEMMIAASGPVFAQ 540
Db	425	EXPALLEWPFPKQKVTLIMDQGSSRRHLGDAFKPPNSSFKKPGEMMIAASGPVFAQ 484
QY	541	TVLENGTVIKDDTIFKIVIVTSIDLP 568
Db	485	TVLENGTVIKDDTIFKIVIVTSIDLP 512

Search completed: December 19, 2002, 14:54:25  
 Job time : 41 secs